

A new species of the genus *Lysiteles* (Araneae: Thomisidae) from Hainan Island, China

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Abstract — A new species of the spider family Thomisidae from Jianfeng National Nature Reserve, Ledong County, Hainan Province (Hainan Island), China, is described under the name of *Lysiteles anchorus*. The new species resembles *Lysiteles ambrosii* Ono 2001, from Bhutan and *L. okumae* Ono 1980 from Japan, but can be distinguished from these known species by having a pair of lateral pockets on epigynum and by the unique structure of male palp, especially the anchor-shaped embolus and the huge, retrolateral apophysis on tibia.

Key words — Araneae, Thomisidae, *Lysiteles*, new species, China

Spiders of the genus *Lysiteles* are small thomisids with body length 2.0–4.5 mm, which mainly live in the forest and are collected from trees, lower vegetations, and fallen leaves on the ground (Ono 1988). Since Simon established this genus in 1895, 35 species have been reported all over the world, and with a distribution in the East and Southeast Asia (Platnick 2004). In recent years, Ono studied the species of this genus from Russia, Nepal, Bhutan and Japan, reported 16 new species and corrected the taxonomic status of some species (Ono 1979, 1980, 1988, 2001; Ono et al. 1990).

Sixteen species of the genus have been known from China: *L. amoenus* Ono 1980, *L. badongensis* Song & Chai 1990, *L. coronatus* (Grube 1861), *L. dianicus* Song & Zhao 1994, *L. hongkong* Song, Zhu & Wu 1997, *L. inflatus* Song & Chai 1990, *L. kunmingensis* Song & Zhao 1994, *L. linzhiensis* Hu 2001, *L. maius* Ono 1979, *L. mandali* (Tikader 1966), *L. minimus* (Schenkel 1953), *L. minusculus* Song & Chai 1990, *L. quiae* Song & Wang 1991, *L. saltus* Ono 1979, *L. silvanus* Ono 1980 and *L. wenensis* Song 1995 (Song, Zhu & Chen 1999; Hu 2001; Platnick 2004).

By examining the spider specimens recently collected from Jianfeng National Nature Reserve, Ledong County, Hainan Province (Hainan Island), China, an interesting thomisid spider was discovered. After a careful examination, the authors have come to the conclusion that the spider is a new species of the genus *Lysiteles* Simon 1895. This new species performs the seventeenth species of this genus in the Chinese fauna. This paper deals with a description of the new species named *Lysiteles anchorus*.

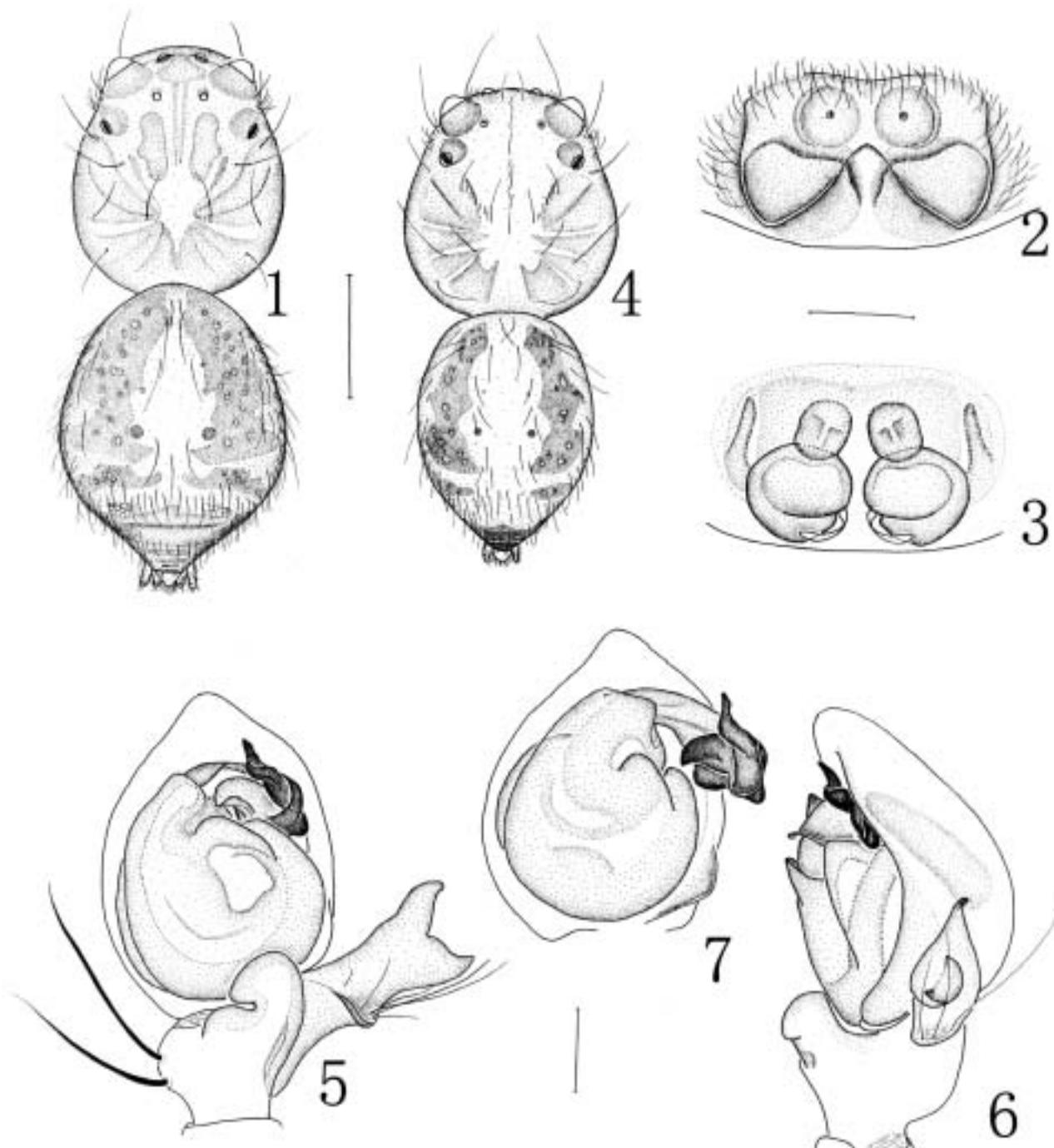
Type series of the new species are deposited in the collection of the College of Life Sciences, Hebei University, Baoding, China.

For the description in this paper following abbreviations are used: ALE, anterior lateral eye; AME, anterior median eye; AME-ALE, distance between AME and ALE; AME-AME, distance between AMEs; MOA, median ocular area; PLE, posterior lateral eye; PME, posterior median eye; PME-PLE, distance between PME and PLE; PME-PME, distance between PMEs. All measurements given are in mm.

Lysiteles anchorus new species (Figs. 1–7)

Diagnosis. The female of this new species resembles that of *Lysiteles ambrosii* Ono 2001 in the shape of epigynum, but differs from the latter by having a pair of longitudinal pockets behind the openings (cf. Figs. 2–3 and Ono 2001, p. 218, figs. 32–33). The shape of male palpal organ of the new species is closely similar to that of *Lysiteles okumae* Ono 1980, but differs from the latter by the shape of embolus much complicated and anchor-shaped, and the very large retrolateral tibial apophysis (cf. Figs. 5–6 and Ono 1988, p. 142, figs. 143–144). In *Lysiteles okumae*, the embolus of male palpal organ is simple and spiculate, and the retrolateral tibial apophysis is much smaller than that of this new species. From other known species, it can be readily distinguished by its unique genital organs.

Description. Female (holotype): Body length 3.74: cephalothorax 1.74 long, 1.42 wide; abdomen 2.00 long, 1.69 wide. Carapace covered with some long dark brown setae. Cephalic part of carapace reddish brown, with two brown longitudinal stripes from anterior median eyes to back edge, an irregular brown patch on the outside of each longitudinal stripes, and a short clavate sloping stripe



Figs. 1–7. *Lysiteles anchorus*, new species: 1–3, Female holotype, 4–7, male paratypes. --- 1, 4, Pro- and opisthosomata, dorsal view; 2, epigynum, ventral view; 3, female internal genitalia, ventral view; 5, palpal organ, ventral view; 6, palpal organ, retrolateral view; 7, cymbium, palpal bulb and embolus, ventral view. (Scales for Figs. 1, 4, 1 mm; for Figs. 2–3, 5–7, 0.2 mm)

between cervical groove and irregular brown patch. Thoracic part dark reddish brown. Cervical groove and radial furrows distinct and dark brown, with radiate patches between them. Fovea lacking. Both eye rows strongly recurved, with posterior row slightly longer than anterior row. Lateral eyes on tubercles separated from each other. AME-AME 0.15, AME-ALE 0.14, PME-PME 0.27, PME-

PLE 0.33. MOA 0.41 long, front 0.33 wide, back 0.36 wide. AME 0.11, ALE 0.23, PME 0.05, PLE 0.14. Clypeus 0.33. Chelicerae reddish brown, promargin without teeth, while retromargin with a denticle. Labium and maxillae yellowish brown, sternum yellowish white. Labium longer than wide, with six black hairs transversely lined near the distal end. Sternum cordate, the front end slightly recurved, the back

end relatively acute. Legs yellowish and spinious. Leg formula: 2143. Leg measurements: I 5.75 (1.69, 0.58, 1.42, 1.16, 0.90), II 6.05 (1.84, 0.58, 1.42, 1.26, 0.95), III 3.79 (1.21, 0.53, 0.84, 0.63, 0.58), IV 4.01 (1.32, 0.58, 0.90, 0.63, 0.58). Tibia I-II with two pairs of ventral, three prolateral, three retrolateral and two dorsal spines. Metatarsi I-II with two pairs of ventral, three prolateral and three retrolateral spines, and without dorsal spines. Abdomen slightly longer than wide, brownish. Dorsum densely covered with short and long dark brown hairs, with two big symmetrical black markings and a pair of reddish sigillae. Venter yellowish white, with a pair of small brown markings on the posterior part. Epipyrum provided with a pair of longitudinal pockets on both sides, spermathecae divided into two parts, both of them globular, with intromittent orifice situated in the middle of the front spermatheca.

Males (paratypes): Body length 3.53–3.79. One of the paratypes: body length of 3.53; carapace 1.63 long, 1.48 wide; abdomen 1.90 long, 1.37 wide. Carapace yellowish brown. Cervical groove and radial furrow distinct, patches between them reddish brown and radiate. Abdomen longer than wide, slimmer than that of female. Ventral brown markings of abdomen lacking. AME-AME 0.14, AME-ALE 0.12, PME-PME 0.26, PME-PLE 0.31. MOA 0.36 long, front 0.29 wide, back 0.33 wide. AME 0.10, ALE 0.18, PME 0.05, PLE 0.14. Clypeus 0.31. Leg formula: 2143. Leg measurements: I 6.53 (1.95, 0.58, 1.63, 1.42, 0.95), II 6.89 (1.84, 0.63, 1.84, 1.58, 1.00), III 3.75 (1.11, 0.42, 0.95, 0.69, 0.58), IV 4.10 (1.21, 0.47, 1.05, 0.74, 0.63). Embolus of the palpal organ complicated, and distally anchor-shaped. Ventral tibial apophysis short, thick and hooked. Retrolateral tibial apophysis large, bifurcated and forceps-shaped, with a lateral ridge near the base. Other characters

almost the same as those of the female holotype.

Type series. Holotype: ♀ (MHBU-Ar-1), and paratypes 4♂ (MHBU-Ar-2), Jianfeng National Nature Reserve, Ledong County (altitude: 806 m; 18°44'25.0"N; 108°51'32.5"E), Hainan Province, December 13, 2003, Mingsheng Zhu and Junxia Zhang leg., deposited in the collection of the College of Life Sciences, Hebei University, Baoding, China

Etymology. The specific name from Latin anchorus refers to the shape of the embolus.

Distribution. Hainan (at present known only from the type locality).

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